



Evaluation #

200262-H Revised
(Replaces 980084-H)

Safety & Buildings Division
201 West Washington Avenue
P.O. Box 2658
Madison, WI 53701-2658

Wisconsin Building Products Evaluation

Material

Waste Oil Furnace & Boiler
With AG (optional above ground) Tank

Manufacturer

Energy Logic
240 Great Circle Road, Suite 344
Nashville, TN 37228-1721

SCOPE OF EVALUATION

GENERAL: This report evaluates Black Gold Models 200 and 400 combustion-type waste oil burning water heaters and furnaces, and Black Gold Models 200 and 495 combustion-type waste oil burning boilers. The waste oil burning equipment is manufactured by Energy Logic.

The **IBC** requirements below in accordance with the current **Wisconsin Amended ICC Code:**

- The Black Gold Models 200, 400, and 495, were evaluated for use as waste oil burning appliances in accordance with **s. IBC 302.1.1.1**.

The **IMC** requirements below in accordance with the current **Wisconsin Amended ICC Code:**

- The Black Gold Models 200, 400, and 495, were evaluated for use as waste oil burning appliances in accordance with **ss. Comm 64.0001, 64.0002, 64.0102, 301.3, 301.4(a), 301.5, 303.1, 304.1, 910.1, 917.1, and 918.1**.

The **Comm 10** requirements below are in accordance with the current **Wisconsin Flammable and Combustible Liquids Code:**

- The Black Gold Models 200, 400, and 495, were evaluated for use as waste oil burning appliances in accordance with the current **Wisconsin Flammable and Combustible Liquids Code, Chapter Comm 10**.
- Black Gold's waste oil tank was evaluated for use as a waste oil storage tank in accordance with the Wisconsin Flammable and Combustible Liquids Code, **Chapter Comm 10**.

- Class II fuel oil tanks (No. 2 fuel oil or other combustible fuels) and used crankcase oil tanks shall comply with **Chapter Comm 10** in accordance with the **IMC as Modified by Chapter Comm 64**.

DESCRIPTION AND USE

The Black Gold **Models 200** and **400** combustion-type waste oil burning water heaters and furnaces are listed for use with waste crankcase oils comprised of different grades of used automotive oil, transmission fluid, brake fluid, and gasoline. Units may also be used with commercial grade #2 fuel oil. Units are supplied as horizontal central furnaces intended for connection to a duct system and as a free standing self-contained heater that discharges warm air via louvered grills. Intended use of these products is the heating of commercial and industrial structures. These appliances are designed for a maximum outlet air temperature of 250 degrees F or less with an external static pressure of .28 in. W. C. Above ground storage tank is optional with each appliance.

The Black Gold **Models 200** and **495** combustion-type waste oil burning boilers are for use with waste crankcase oils comprised of different grades of used automotive oil, transmission fluid, brake fluid, and gasoline. Units may also be used with commercial grade #2 fuel oil. Units are supplied in a free standing, self-contained configuration for connection to existing and new re-circulating hot water heating systems. Above ground storage tank is optional with each appliance.

The waste oil, **aboveground rectangular steel tank** is single walled, 250-gallon capacity, and is listed for compliance with UL Standard 142 for indoor use with flammable liquids. Brackets are provided for bolting the heater and other equipment to the tank. Nothing may be attached or welded to the tank, which voids the listing. The tank is designed for aboveground storage of flammable liquids at atmospheric pressure. They are for use with only non-corrosive, stable liquids that have a specific gravity not exceeding that of water.

TESTS AND RESULTS

The Black Gold models 200, 400 and 495 waste oil heaters are listed by UL for conformance to UL standards 296 and 727 for waste oil burners and furnaces. The Black Gold models 200, 400 and 495 waste oil heater and Black Gold waste oil tank are listed by UL individually and as a package fuel tank/warm air appliance shipped together as a unit.

The tank is constructed in accordance with the current edition of the Standard of Underwriter's Laboratories, Inc., for Steel Aboveground Tanks for Flammable and Combustible Liquids for indoor use with flammable liquids.

LIMITATIONS OF APPROVAL

The **IBC** limitations below are in accordance with the current **Wisconsin Amended ICC Code**:

Because garages and aircraft hanger buildings are classified as a high hazard use under **IBC Chapter 3**, waste oil tanks are not required to be placed in rated enclosures within those occupancies.

In accordance with their listings, the 200, 400 and 495 models including the Black Gold waste oil tank can be installed as individual units, with other code complying tanks or heating equipment, as long as the applicable portions of this approval are observed.

The Black Gold models 200, 400 and 495 waste oil equipment installed in storage garage, repair garage and factory occupancies shall be installed as required per **s. IBC 302, Table 302.1.1**, and **s. IBC 1007.1**.

The waste oil central furnaces and unit heaters shall be installed in garages suspended at least 8 feet off the main floor and be visible from the main floor in accordance with **s. IBC 406.6.5, Exception 1**.

The waste oil central furnaces and unit heaters shall be installed in aircraft hangers as allowed in **s. IBC 412.2.4**. Black Gold's waste oil tank was evaluated for use as a waste oil storage tank in accordance with the Wisconsin Flammable and Combustible Liquids Code, **Chapter Comm 10**.

The **IMC** limitations below are in accordance with the current **Wisconsin Amended ICC Code**:

The Black Gold models 200, 400 and 495 waste oil equipment are approved as a heating appliance that meet standards recognized by the department and are listed by an agency recognized by the department in accordance with **IMC as Modified by Chapter Comm 64**.

In occupancies where waste oil equipment is allowed, the equipment protection from damage shall be in accordance with **s. IMC 303.4**

The **Comm 10** limitations below are in accordance with the current **Wisconsin Flammable and Combustible Liquids Code**:

Class II fuel oil tanks (No. 2 fuel oil or other combustible fuels) and used crankcase oil tanks shall comply with **Chapter Comm 10** in accordance with **IMC as Modified by Chapter Comm 64**.

The tank shall be installed indoors in accordance with **s. Comm 10.335 (3)**, no more than 36 inches above the floor. The tank shall be provided with a 2-inch I.D. normal vent. Both vents shall terminate outside the building in accordance with NFPA 31.

The fill opening for the tank may terminate outside the building in accordance with section 2-4 of NFPA 30 or inside the building in accordance with section 5-4 of NFPA 30. If the fill terminates inside the building, it must be closed with a vapor tight cap or be part of a closed system. The fill pipe shall be closed after the filling activity is completed.

As is required for all types of heating equipment and fuel tanks, plans shall be submitted to the department for review in accordance with **s. Comm 61.30**.

The waste oil central furnaces and unit heaters shall be installed, vented, and used in accordance with their listing, the manufacturer's recommendations and this evaluation.

This approval will be valid through December 31, 2007, unless manufacturing modifications are made to the product or a re-examination is deemed necessary by the department. The product approval is applicable to projects approved under the current edition of the applicable codes. This approval may be void for project approvals made under future applicable editions. The Wisconsin Building Product Evaluation number must be provided when plans that include this product are submitted for review.

DISCLAIMER

The department is in no way endorsing or advertising this product. This approval addresses only the specified applications for the product and does not waive any code requirement not specified in this document.

Revision Date: June 8, 2004

Approval Date: February 20, 2003 By: _____

Lee E. Finley, Jr.
Product & Material Review
Integrated Services Bureau